

## **City of Los Angeles Comments**

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August 25, 2004

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**COMMENTS ON THE DRAFT TOTAL MAXIMUM DAILY LOAD AND BASIN PLAN  
AMENDMENT FOR METALS IN THE LOS ANGELES RIVER**

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Dear Mr. Bishop and Ms. Strauss:

The City of Los Angeles (City) appreciates the opportunity to comment on the proposed Basin Plan revisions for the Total Maximum Daily Load (TMDL) for Metals in Los Angeles River. The City recognizes the importance of aquatic life, wildlife, and related beneficial uses in the river. The restoration and protection of these uses are very high priorities. As evidence of this, the City Council recently approved a bond measure for the November 2004 ballot, which will provide \$500 million to address TMDLs in our watersheds. Furthermore, the City has taken the lead in pursuing the goals of our Integrated Resources Plan (IRP) and has initiated a Stakeholder-led process to oversee TMDL development and supporting studies.


Due to schedule constraints from the consent decree, the stakeholder-led process to support the development of information and studies leading to TMDL allocations was not possible for this particular Basin Plan Amendment. Nevertheless, the stakeholder-led process has now begun. Consistent with our commitment, we want assurances that the State Regional Water Quality Control Board (RWQCB) and U.S. Environmental Protection Agency (EPA) are also committed to utilizing the stakeholder-led process in an iterative approach of improving the allocations, the implementation plan and the critical knowledge of the water body. We are gratified by the



language on a phased approach to implementation (Table 7-13.1 Los Angeles River and Tributaries Metals TMDL: Elements) and we expect that this phased implementation will be coupled with language that will require reopeners of the allocations not only periodically, but affirmatively as new data are developed. As the lead stakeholder, the City is committed to working with you to produce data and analyses, including the effectiveness of BMPs, which will lead to modifications and improvements of this Basin Plan in order to achieve our mutual water quality objectives.

The City appreciated the opportunity to participate in stakeholder meetings held by the U.S. EPA and RWQCB to discuss the development of this TMDL. After review of the recently released draft TMDL, we have additional comments and concerns regarding the proposed allocations, implementation schedules and strategies, data gaps, and monitoring. These are presented in greater detail below.

1. **TMDL for unlisted waters and pollutants.** The Staff Report includes Table 1, which illustrates that none of the reaches are listed for all of the metals discussed in this TMDL. Only Reach 1 of the LAR is listed for five of the six metals discussed in the Staff Report. The Staff Report also contains an admission that there are no metals listings for Reach 3 and Reach 5, which are the two reaches of the river where the City of Los Angeles' POTWs discharge. (See Staff Report pgs. 11-12 and 86). Under the Clean Water Act, the State must establish a TMDL for waters identified on a State's 303(d) List. U.S.C. §1313(d)(1)(C). *A TMDL is not required where waters are not listed.*

The State has no obligation or authority to perform a TMDL for waters not included on the State's 303(d) List. In order to develop a TMDL for a non-listed reach, the RWQCB must abide by a process agreed to by U.S. EPA in letters dated May 6, 2003, to the RWQCB (Dennis Dickerson) and City of Los Angeles (Hon. Nate Holden and Jan Perry, LA City Council). See Enclosures. 

The May 6, U.S. EPA Region IX letter to the RWQCB transmitted the following instructions:

- If the Regional Board is adopting a TMDL for a segment or pollutant that is not included in the current 303(d) list, the Regional Board should clearly identify such segment as a water quality limited segment needing a TMDL for the identified pollutant:
- The RWQCB should provide a specific record supporting the conclusion that this is a water quality limited segment.
- The RWQCB should indicate why it is important to adopt a TMDL for this segment and pollutant at this time.
- The Regional Board should public notice the identification of the segment as a water quality limited segment needing a TMDL either before or as part of the

public notice for the TMDL and the record of impairment should be available for public review during the public comment period. *Id.*

U.S. EPA Region IX wrote these letters as part of a settlement with the City (as plaintiff) for the Trash TMDLs lawsuit and recommended the above process as a way to ensure that TMDL development in the future is clear and transparent to the general public.

RWQCB and U.S. EPA did not present sufficient information to justify the inclusion and regulation of all metals in all reaches of LAR. Our preliminary data review shows the data analysis by RWQCB and U.S. EPA are distorted, and do not support inclusion of non-listed metals.

The TMDL should limit the WLAs and LAs for each pollutant to only those reaches of the River and its tributaries that have actually been deemed “impaired” and included on the 303(d) List. The Regional Board and U.S. EPA Region IX did not publicly notice additions to the 303(d) List, and therefore those additions cannot be added without renoticing for public comment.

*Requested Action:* The RWQCB and U.S. EPA should scale back the TMDL to apply only to reaches listed on the Impaired Waters List and only for the pollutants listed in those reaches. The RWQCB and U.S. EPA should use an iterative, transparent process where complete and adequate assessments are presented to justify a listing based on the proposed SWRCB Listing Policy, and the 303(d) listing public review process, which is projected by the SWRCB to begin in Fall 2004. The RWQCB and U.S. EPA must fully provide the information, public notice, and the transparency as instructed in U.S. EPA Region IX’s letters to comply with the statutory requirements and the settlement agreements.

2. **Iterative/Adaptive process for POTWs:** In compliance with existing NPDES permits, the City has committed to completing a Water Effect Ratio (WER) study to assess protective copper water quality objectives directly downstream of the POTWs. Through review of the study workplan, stakeholders have expressed interest in WER studies further downstream and in the estuary. Recognizing that it will take time to scope and approve studies addressing the entire length of the Los Angeles River, including complexities of an estuarine environment, we recommend taking a phased, iterative, adaptive approach to implementation of numeric targets as effluent limits for POTWs.

*Requested Action:* Modify the Staff Report and proposed Basin Plan amendment to implement copper numeric targets as effluent limits in NPDES permits in three phases:

Phase 1: Impose interim, performance-based targets – **See Attachment 2 for recommended interim, performance-based effluent quality limits.**

Phase 2: Phase in targets based on Water Effect Ratio, translator, and hardness studies completed immediately downstream of the POTWs

Phase 3: Adjust WLAs based on Water Effect Ratio, translator, and hardness studies completed in all reaches of the River.

3. **Iterative/Adaptive process for stormwater and urban runoff:** The City supports the overall iterative process of BMP assessment and implementation. We recognize the RWQCB encourages the use of smaller BMPs that address pollutant sources in preference to end-of-pipe treatment. The RWQCB has also encouraged agencies to pursue sediment removal BMPs, since metals may be associated with particulates. In addition, BMPs targeted at potential pollutant sources, such as runoff from parking lots, show some promise. However, data needs to be gathered to fully evaluate such BMPs, and be able to provide assurances that standards will be met in receiving waters.

Stormwater and urban runoff WLAs should be implemented as management practices (BMPs), or source control requirements. Under *Communities for a Better Environment v. State Water Resources Control Board, et al.* (2003) 109 Cal.App.4th 1089, 1106 [1 Cal.Rptr.3d 76], reh'g. den., 2003 Cal.App. LEXIS 1082 (1st. Dist. June 27, 2003), cert. den., 2003 Cal. LEXIS 7251 (Sept. 24, 2003), the Court of Appeal found that alternative effluent control strategies, source control measures, and BMPs are valid alternatives to numeric effluent limits pursuant to 40 C.F.R. §122.44(k).

*Requested action:* Remove all references to numeric limits for evaluation of wet weather and urban runoff compliance by MS4 stormwater programs and CALTRANS, as there is insufficient evidence that numeric limits for stormwater can be feasibly attained or even scientifically monitored. In the proposed Basin Plan amendment, under Waste Load Allocations, heading MS4 and Caltrans Stormwater Permittees, remove the paragraph beginning with "For wet-weather conditions, a load reduction curve is developed...." Replace that paragraph with: "Compliance for urban runoff permittees for wet and dry weather will be assessed through benchmark objectives for BMPs specified by the compliance plan. The validity of these benchmarks will be assessed through provisions provided within the TMDL-required monitoring plan; these provisions will provide the RWQCB assurances that standards in the receiving water will be met to the maximum extent practicable. The benchmarks and monitoring provisions may be adjusted by the Executive Officer through an iterative and adaptive process as necessary data is obtained." Also make similar changes to section 6.4 of the Staff Report.

*Requested action:* In the proposed Basin Plan amendment and Staff Report, replace all references to "compliance points" within the river with "**TMDL effectiveness monitoring points.**" These locations will be selected during the development of the monitoring plan.

4. **Critical flow:** The proposed waste load allocations (WLAs) are greater than the load capacity of the river (Tables 28 and 29) because the proposed permit calculations were done using the total design flow for the POTWs. However, the WLAs for the river are based on a critical flow at Wardlow of 145 cfs, which is less than the combined design

flow of 169 cfs that the three treatment plants discharge to the river. We support the use of permitted plant design flow for the calculation of plant WLAs. *See accord* 40 C.F.R. §122.45(b)(1). These plants have been designed and permitted to handle these higher flows, which will translate into higher river flows when design capacity is met. Further, the IRP's public planning process is anticipating an increase in growth and associated water usage and disposal to the sanitary sewer and is considering expansion of the design capacity of these facilities to handle these increased flows.

The WLAs for the entire river should not be based on a flow that is less than the design flow of the three treatment plants. WLAs should be calculated on the basis of design flow plus some additive component for stormwater discharge, as this will be the minimum flow in the river during dry weather conditions in the future. Application of a number, which is based on historical median stream gage flows, unreasonably limits POTWs from fully utilizing existing capacity that has been approved and funded by U.S. EPA and permitted by the RWQCB.

A minimum critical flow based on POTW design flow plus an allocation for stormwater flow contribution (e.g. equivalent to 20-40% of historical stream flows considered in the development of this TMDL) is recommended, with periodic reassessment and adjustment of the TMDL and WLAs to account for treatment plant expansions due to growth.

A reconsideration of the critical flow for the entire river is warranted. As part of our continuous planning process, we need to know the total metals load that can be assimilated when the river has reached future flows already permitted through public process. With that information, we can plan POTW and stormwater infrastructure and management in a reasoned and rational manner that will protect beneficial uses now and into the foreseeable future.

*Requested Action:* Base the dry weather critical flow on current design flow from the POTWs, plus 20 percent of the current stream flows, because design flows have already been permitted through a public process and a minimum stream flow will be present.

*Requested Action:* Modify the Staff Report and proposed Basin Plan amendment so that periodic reassessment of the TMDL includes consideration of POTW expansion as part of the IRP implementation and adjusts the WLAs accordingly.

5. **Margin of Safety:** Because of existing conservative assumptions, there is no need to set the critical flow in the TMDL at less than design capacity. Dry weather flows in the Los Angeles River are by far represented by POTW flow. Setting the TMDL critical flow at less than design flow is tantamount to a growth cap for the City, absent significant upgrades to treatment processes.

*Requested Action:* Replace the text in the Margin of Safety section of the proposed Basin Plan Amendment according to the following underlined and struck out paragraph, and modify the similar paragraph in Section 6.5 of the Staff Report:

“There is an implicit margin of safety that stems from the following conservative assumptions: (1) the use of conservative values for the translation from total to the dissolved fraction during the dry and wet periods, ~~(2) the use of a dry weather critical flow which is less than the combined design flow of the three treatment plants~~ (2) The use of conservative assumptions about the toxicity of metals to aquatic life (using default Water Effect Ratios of 1.0); and ~~(3) the wetweather metals loadings predicted by the model tend to overestimate the actual loadings. Therefore, the estimated percent reduction necessary to meet the waste load allocation is conservative, as quantified in Figures 17-13.1 — 17-13.3.~~(3) Water quality objectives already have implicit margins of safety in the way these criteria are developed. These compounded margins of safety are adequate to protect beneficial uses.”

6. **POTW effluent allocations:** The RWQCB used the State Implementation Plan (SIP) procedure to calculate monthly average and daily maximum effluent limits and Waste Load Allocations (WLAs) for the POTWs. Daily maximum limits have been determined to be illegal (City of Los Angeles vs. State Water Resources Control Board, et al., Superior Court No. BS060957) and should not be a part of the waste load allocations or permit limits unless and until an impracticability analysis is done on longer term limits. *See* 40 C.F.R. §122.45(d)(2). Since the TMDL is based predominantly on chronic criteria (also known as the criterion continuous concentration (CCC), which is “the highest concentration that could be maintained indefinitely in a water body without causing an unacceptable effect on the aquatic community or its uses.” *See* Preamble to the California Toxics Rule, 65 Fed. Reg. 31691 (May 18, 2000) citing Technical Support Document at Appendix D-1.), there is no reason why longer-term average limits (e.g., monthly average) are not practicable as WLAs or effluent limits.

*Requested Action:* Remove all references to daily maximum limits throughout the document [e.g. Attachment A to the Resolution, Table 30 of Staff Report], unless an impracticability analysis is done and it can be demonstrated that longer-term averages will in fact cause aquatic toxicity. All WLAs based on chronic criteria should be set as monthly averages.

7. **Compliance for POTWs:**

Since the proposed allocations are to be adopted in permits after the effective date of the TMDL, there is no time provided to achieve compliance with these new limits. An evaluation of historical effluent data indicates that interim limits will be necessary for POTWs to meet the concentration-based limits required by the TMDL as well as mass limits when the treatment plants are at or near design capacity. POTWs may be required to construct new treatment facilities to meet these limits as proposed by the TMDL. In addition, these limits are based on factors such as translators, hardness, and water effect

ratios, which the TMDL acknowledges will require more study to clarify the technical uncertainties present in the calculations of these numeric targets. Although the TMDL allows time for re-openers, it makes these limits effective immediately, allowing no time for these initial limits to be verified by the additional data as required by the TMDL's implementation schedule. Adequate time must be provided to allow for accurate limits based on solid data considering the potential costs and time involved in constructing new treatment facilities to meet proposed limits in the TMDL.

*Requested Action:* Modify the TMDL so that numeric targets with significant uncertainties do not drive costly POTW infrastructural projects until technical uncertainties in the targets are resolved. This can be accomplished by establishment of interim, performance-based targets while uncertainties are resolved in the first phase of TMDL implementation.

8. **Load Capacity Curve:** The wet weather waste load allocations for the MS4 system are effectively derived from the load capacity curves for each metal, but these infer that all runoff from all storm events no matter how large must meet the concentration-based wet weather waste load allocations. The largest storms on the load capacity curves are in excess of 4.2 inches of rain, representing storm events that occur more frequently than once in 12 years. Most storm events in the Los Angeles area are smaller and more frequent, as recognized in the numerical targets for treatment controls for new development under the SUSMP requirements. Compliance with the TMDL as proposed would require the capture and treatment of large quantities of urban runoff over all storm events, with total load reduction estimates of over 70% for both copper and zinc according to Figures 11a through 11c. Thus, there is a need to clarify the maximum amount of volume or storm event size that MS4 dischargers are expected to capture and treat. In examining the wet weather model for Ballona Creek, the Southern California Coastal Water Research Project produced graphs showing inches of rain captured and treated (or infiltrated) versus percent exceedances of the metals targets. Such graphs can be used to provide insight to the levels of practicable effort needed to remediate a rain event. The important point here is that it is not feasible to try and manage stormwater from extreme events, because the volume of water is so large, nor is it necessary to meet numeric water quality objectives at all times (i.e., during extreme storm events), because acute and chronic objectives allow exceedances of numeric objectives at frequencies of once every three years or longer.

*Requested action:* Modify the Staff Report and proposed Basin Plan amendment to define a threshold storm event consistent with water quality standard calculations which account for magnitude, frequency, and duration, above which capture, treatment, or other action is not needed due to the allowable once-in-three years exceedance frequency, and also feasibility issues. City staff can provide information on the size of a three-year storm, as well as information on feasibility, if assistance is needed.



9. **Wet Weather Compliance and MEP:** It is difficult to understand how the load capacity curves will be used to determine compliance, and what actions should be taken if the compliance point at Wardlow Road is found to be out of compliance.

*Requested Action:* Modify the proposed Basin Plan amendment, including table 7-13.2 and Staff Report, including Table 35, so that load capacity curves will not be used to determine compliance by MS4s and CALTRANS. Define wet weather compliance as management of smaller, more frequent storm flows, to the Maximum Extent Practicable (MEP). Also, in both locations, insert the statement “Benchmarks for determining MEP will be provided in the compliance plan, and these benchmarks will be assessed through provisions in the wet weather section of the monitoring plan and revised as necessary when the TMDL is reconsidered.”

*Requested Action:* Draw the loading capacity curves on a normal scale, not a log scale, so that the magnitude of the mandated load reductions is apparent to non-scientists. At a minimum, provide the data from your model well in advance of the public hearing so that the curves can be drawn to normal scale to show the public the true magnitude of load reductions being required.

10. **Load Capacity Curve for Lead:** The RWQCB staff should look at the lead data to see if some of the historical exceedances occurred when leaded gasoline was legal. If that is the case, perhaps the data set should be shortened to exclude those years. This is consistent with the draft 303(d) listing policy that discourages listings for historic loadings. Lead is also one of the trace metals that most easily produces analytical artifacts. Trace metal clean techniques have only recently been standardized, so only the most recent lead data should be used to evaluate exceedances.

*Requested Action:* Only consider lead data from the past five years to evaluate exceedances during wet weather.

11. **Monitoring plan schedule:** Due to the large number of stakeholders (i.e., responsible municipalities), the development of a monitoring plan is expected to take longer than 120 days, as specified in the TMDL implementation schedule. Each participating municipality must obtain their city’s approval and budget for cost sharing. For ambient monitoring we may want to get the industrial permittees to participate in the process. In order to work cooperatively, it took one year for five agencies to work together for one of the Santa Monica Bay Bacterial TMDL Jurisdictions; we can expect the need for a longer period for the 30 different MS4 co-permittees along the Los Angeles River.

*Requested Action:* Due to the number of municipalities (MS4 NPDES co-permittees), we request that the monitoring plan schedule be extended to at least 12 months after the effective date (ED).

12. **Compliance plan schedule:** As with the monitoring plan schedule, due to the large number of stakeholders we require at least 24 months after the effective date (ED) (vs. 12 months) to draft the compliance plan and 30 months after the ED (vs. 16 months) to finalize the plan.

*Requested Action:* Modify the compliance plan schedule to extend the deliverable dates to 24 months after the ED for the draft compliance plan and 30 months after the ED for the final plan.

13. **Definition of a storm:** The TMDL defines the duration of a rain event as the start of rain until return to baseline flow of 145 cfs. The “wet weather condition” is indicated to be at 500 cfs. However, it is not clear if we have to wait until flows reach 500 cfs before wet weather compliance and sampling for wet weather begins. Many storms never reach the 500 cfs level. There is no need for prescriptive definition of the triggers in the TMDL Staff Report and proposed Basin Plan amendment. The appropriate place for the triggers to be defined is during submission and approval of the wet weather monitoring plan. That way, subsequent monitoring plans can be easily adapted as we learn what works best. Other information may be better for determining the start of a storm, such as a flow increase of a specified amount, combined with reports of actual measured rain. Furthermore, for practical reasons, it may not be necessary to sample for the duration of the entire storm. In order to be consistent among the TMDLs, the definition of a storm provided by the Santa Monica Bay Beaches Bacterial TMDL (0.1 inch of rain or better and the three days following a rain event) could be used as a starting point for a consistent definition of a rain event. Triggers for wet weather monitoring should consider both U.S. EPA’s definition of a storm event (0.1 inch of rain or better and the three days following a rain event), and flow.

*Requested Action:* Modify the Staff Report and proposed Basin Plan amendment to remove all prescriptive definitions of wet weather monitoring triggers. Simply state that the triggers should consider both flow and rainfall, and should be defined in the wet weather monitoring plan.

14. **Copper translator for dry weather:** The City of Los Angeles proposed local dry-weather translator (conversion factors for calculating total metals targets from dissolved targets) numbers for copper for the areas downstream of the DCT (Reach 4) and LAG (Reach 3) water reclamation plants based on a study performed by Larry Walker and Associates (LWA, 2003). Thorough scientific and agency review resulted in a recommendation to use the translators derived in the City’s study and as supported by the partition coefficient method for DCT. The TMDL should use the translators derived in the study: 0.57 for chronic and 0.72 for acute at DCT; 0.77 for chronic and 0.84 for acute at LAG. The TMDL should use the translator data developed by the City of Los Angeles in calculating WLAs for both plants. The studies performed by the City were done using SIP procedures based on a workplan approved by the RWQCB. RWQCB staff participated in the development and performance of the study. Even after questions arose regarding the translators during the development of the TMDL, the City submitted additional partition coefficient analysis to explain and verify the results of the study. This additional analysis showed that the study’s original translator values for DCT were valid when Total Suspended Solids were taken into account. However, the RWQCB did not use the study’s original translator values. No justification exists for not using LAG’s translators considering that even U.S. EPA’s analysis found a very strong correlation between LAG’s translator and total and dissolved copper.

*Requested Action:* Use the original dissolved metal to total metal translator values for both Los Angeles-Glendale (LAG) and Donald C. Tillman (DCT) that were developed in the City of Los Angeles' Study.

*Requested Action:* Delete the sentence in the Staff Report "LWA proposed partition coefficients for use as copper translators." (Staff Report, page 30). Replace with "LWA used partition coefficients to validate the copper translator study. RWQCB staff decided to use the partition coefficients in lieu of the copper translator study coefficients."

*Requested Action:* Use the above-cited translators (from the original copper translator study) to calculate targets as they are the best available data and research done to date. The TMDL requires that additional data be collected to verify these results but in the interim, they should be used in calculating concentration targets for the plants. We would be happy to provide more detailed technical language for the TMDL explaining the rationale for the targets that should be utilized.

**15. Implementation and Reconsideration of the TMDL Wasteload Allocations and Implementation Schedule**— Waste load allocations for major POTWs are implemented through their NPDES permits. Although U.S.EPA policy allows wasteload allocations for storm water to be expressed in numeric form, it is not required. Specifically, EPA's 2002 Storm Water TMDL/Permitting Guidance states that, "EPA expects that most WQBELs for NPDES-regulated municipal and small construction storm water discharges will be in the form of BMPs, and that numeric limits will be used only in rare instances." See accord 40 C.F.R. §122.44(k)(2) and (3).

*Requested Action:* Remove all language specifying that U.S. EPA requires numeric limits for storm water (e.g., Page 63).

Also, the implementation schedule specifies that there will be 50% area compliance with the dry weather waste load allocations six years after the effective date of the TMDL. At the same time, the TMDL will be reconsidered by the RWQCB on the basis of new data or special studies. Since new data or results from special studies may affect either wasteload allocations or implementation methods, an additional year of data and information may be necessary in order to expand the studies and obtain a more reliable data set.

*Requested Action:* at the six-year point, in addition to reconsidering the WLAs, add **reconsideration of the implementation schedule**.

*Requested Action:* Change the date for special studies to be finished from four years to five years after the effective date and provide a mechanism based on an iterative approach that will provide support for a planning process. Leave the first compliance date and reconsideration of the TMDL WLAs and implementation schedule at 6 years after the effective date of the TMDL.

16. **Monitoring:** Notwithstanding our request to measure compliance with BMP implementation rather than numerical limits for one or more compliance points along the river, it is not practical to take 24 discrete samples over 24 hours and then test 4 samples. This will not increase our knowledge of pollutant loading in the river. Selecting random grab samples to compare with chronic criteria is incorrect, since chronic effects take a longer time frame to occur. Furthermore, it usually takes weeks for the results of metals concentrations to be available from the lab (unlike bacterial analyses which take 24 hours to analyze). Thus, the lab would have to save the remaining samples until the first test results are available, and the waiting time for the second batch of tests may overlap with the next month's sampling. Further, the labor involved in analyzing four samples initially and then the additional samples in the event of an exceedance, is excessive. A single flow weighted composite is preferable. The State Water Code explicitly forbids the RWQCB from prescribing the method or manner of compliance with any requirement or order of the RWQCB, including a TMDL. Water Code §13360(a). Further, the burden of all monitoring requirements, including cost, must be weighed against the benefits to be obtained and the relationship between the two must be reasonable. Water Code §13267(b)(1) and §13225(c).

*Requested Action:* Remove all prescriptive monitoring requirements, unless and until the RWQCB has demonstrated that the burden of such requirements bears a reasonable relationship to the benefits to be obtained, and replace these requirements with general direction that allows the MS4 programs and CALTRANS to determine the most effective way to provide the needed monitoring information.

17. **Required Investigation in the event of an exceedance:** The RWQCB should require agencies to conduct source investigations until 6 years beyond the effective date of the TMDL, rather than immediately. This will give the responsible agencies time to install and implement BMPs before assessing sources per the TMDL-required monitoring plan.

*Requested action:* Modify the Staff Report and proposed Basin Plan amendment to require agencies to conduct source investigations per provisions in the monitoring plan beginning 6 years after the effective date of the TMDL (after the first compliance milestone), rather than immediately.

18. **Load Allocation Calculations:** The description of how the load allocations were derived for both the POTWs and stormwater permittees is not entirely clear. For example, data on the "percent area compromised by a particular reach" (page 54), which was applied in the area-weighted approach to assigning flows to reaches where there were no stream gage flow records, should be provided (also, the word "compromised" was not used correctly). In addition, the process for determining the "concentration-based permit limits required for each plant to meet the reach-specific water quality targets" (page 55) particularly where the reach was not deemed impaired for all metals. And, the reference to calculating the load allocation for stormwater permittees by subtraction (page 56) does

not clearly indicate that the flows are subtracted (as opposed to the mass allocation to the entire reach.)

*Requested Action:* Please clarify the language describing the derivation of load allocations for the POTWs and stormwater permittees, and provide missing data noted above.

19. **Consistent use of hardness:** On page 28 of the staff report, staff justified the use of the 10<sup>th</sup> percentile of hardness for acute criteria by citing the Policy for Implementation of Toxics Objectives for Inland Surface Waters, Enclosed Bays, and Estuaries, or SIP (SWRCB 2000a). The SIP contains no hardness-related justification for using the 10<sup>th</sup> percentile of hardness. The closest statement in the document was related to the total dissolved translator: “the translator shall be derived using the median of data for translation of chronic criteria and the 90<sup>th</sup> percentile of observed data for translation of acute criteria.” That statement applies only to translators, not hardness. Therefore, since the selection of the 10<sup>th</sup> percentile of hardness is arbitrary, the median of the hardness data is more reasonable. Also, for wet weather, the acute target was based on the 50<sup>th</sup> percentile hardness, as shown in table 11 of the Staff Report.

*Requested Action:* Use median hardness to calculate acute water quality objectives for metals.

20. **Cost analysis:**

The Appendix III, on cost analysis for implementation of the TMDL, was not released until August 2, 2004 for public review and comment, 20 days after the release of the Staff Report and proposed Basin Plan amendment.

*Requested Action:* RWQCB should allow an extension of the commenting period in order to address overall difficulties in the review and commenting process caused by this delay.

POTWs:

The draft TMDL contained no information on the potential cost impacts of the proposed waste load allocations (WLAs) on the POTWs. To assist RWQCB staff, a cost analysis is presented in Enclosure 3. The cost analysis was conducted for achieving compliance with the proposed copper WLA for Tillman at its current rated capacity of 80 mgd. Three treatment alternatives were considered: 1) chemical coagulation and special filters, 2) chemical coagulation and microfiltration for 15 mgd sidestream, and 3) microfiltration followed by reverse osmosis for 12 mgd. The total capital costs range from \$30 to \$60 million at Tillman and \$4 million at Los Angeles-Glendale.

These estimates include construction and non-construction markups as applied in the Integrated Resources Plan cost estimating approach.

*Requested Action:* Review and incorporate accurate cost estimates for POTW costs to implement the TMDL.

Stormwater:

The metals TMDL has set specific load allocations that will require large reductions in the total metals concentration from urban runoff within the LA River watershed for various metals. The draft TMDL acknowledges that meeting these load reduction targets will require extensive implementation of several activities including:

- Non-structural source control BMPs
- Structural treatment control BMPs

The TMDL includes limited cost estimates for BMPs that assumes that these BMPs alone are sufficient to meet the water quality requirements of the TMDL. The City is concerned that these cost estimates may be understated, but cannot adequately comment on the reasonableness of the estimates due to the lack of data that addresses the effectiveness of these or other BMPs, the limited amount of information in the staff report, and the lateness of the availability of Appendix III to better understand the basis for the cost estimates presented in the draft staff report.

The cost estimates for compliance are based on several key “building blocks”, all of which have significant uncertainties including:

- The pollutant removal effectiveness and reliability of the various non-structural and structural BMPs that may be required to comply with the TMDL
- The unit cost basis for various BMPs, for example structural BMPs such as sand filters will require land that can be very expensive, and any capture and treatment option will require substantial operational storage and related infrastructure (only made available recently in Appendix III)
- The amount of flow that needs to be captured to achieve 100% compliance with the TMDL which, as currently written, allows no exceedances of the receiving water numerical targets as discussed in Comment 8.

See Enclosure 4 for additional comments.

*Requested Action:* Provide additional backup data for RWQCB estimates that will address the following:

- Data to support the effectiveness of each BMP specific to the land uses that exist in the City
- Cost data that was used to establish the per unit cost included in the BMP
- Assumptions that were used to determine the extent of BMP deployment and runoff capture to achieve the load allocation curves. This is potentially the most significant element of the overall cost estimates and is the least well-documented.

21. **Integrated Resources Plan** – The reference to a goal of 50% of the annual average wet-weather urban runoff is not entirely correct. The guiding principles for the IRP were developed during Phase 1, which was the Integrated Plan for the Wastewater Program, or IPWP. The specific guiding principle for stormwater planning was to “increase the amount of wet weather urban runoff that can be captured and beneficially used.”

*Requested Action:* Replace language in Section 7.1 referencing a goal of using “50% of the annual average wet-weather urban runoff” with the more accurate IPWP goal of “increasing the amount of wet weather urban runoff that can be captured and beneficially used in Los Angeles.”

**22. Critical calculation errors in the dry weather wasteload allocations:** The RWQCB staff should recheck their calculations for lead in Table 29 and zinc in Table 31. Also, RWQCB staff should check its calculations in Table 9 for copper, acute, and the results for the category “Reach 3 and Arroyo Seco.” For Compton Creek, in Table 9, the acute numeric targets were calculated using the median hardness instead of the 10<sup>th</sup> percentile hardness (notwithstanding our request to use the median hardness).

Also, in the proposed Basin Plan amendment in the table “POTW dry-weather WLAs,” and Table 30 of the Staff Report, the 30-day and daily maximum targets for cadmium, lead, and zinc were calculated without applying the translator values. This means that the proposed permit limits for these metals are expressed in the dissolved, not total form. Copper was the only metal with the site-specific translator.

**Corrections for proposed POTW permit limits**

		Correct Calculations (ug/L)			
		Cd	Cu	Pb	Zn
Tillman	AMEL	4	18	7	106
	MDEL	8	27.54	18	212
Glendale	AMEL	4	19	8	191
	MDEL	9	35	22	253
		In LA River Metals TMDL (ug/L)			
		Cd*	Cu	Pb*	Zn*
Tillman	AMEL	4	18	5	103
	MDEL	7	27	12	207
Glendale	AMEL	4	19	5	187
	MDEL	8	35	14	247

\* These values are actually dissolved metals, not total metals

*Requested action:* Check and correct the above errors.

**23. Consideration of new data and the compliance schedule:** We support the reconsideration of the TMDL wasteload allocations based on new water effect ratios, new hardness data, new translator data, and more accurate flow data (including reevaluation of the critical flow), with the intent of developing more accurate, scientifically-based allocations.

*Requested Action:* Reconsider and revise the TMDL waste load allocations as soon as more accurate, scientifically based information on the copper Water Effect Ratio becomes available and the peer review is complete. Also, allow reconsideration of the compliance schedule so that

agencies will have additional time to modify the plan and to design and construct structural BMPs based on new waste load allocations.

24. **Air deposition:** The TMDL addresses air deposition by realizing that most of the air deposition washes into the MS4 system. Therefore, the assumption is that the air deposition will be treated by BMPs targeted at catch basins, parking lots, roads, etc. The City will attempt to “treat” deposited air emissions, which enter the MS4, in order to comply with this TMDL, but the RWQCB should recognize the importance of source prevention by gaining participation from agencies with authority over air issues.

*Requested Action:* Specify in the Staff Report and proposed Basin Plan amendment how source control for air deposition will be attained, and state the importance of gaining participation from agencies with authority over air issues. Alternatively, air sources should be treated as background sources and addressed as stated in the next section.

25. **Background sources of Metals:** The City supports the RWQCBs ongoing studies of reference systems in order to determine contribution of pollutants by the natural background. If reference systems are a significant source of background metals, the RWQCB should consider providing an allowance for naturally occurring metals without decreasing the wasteload allocations of the POTWs or MS4 system. A reference system approach was used for bacterial TMDLs in our region, in which a reasonable amount of exceedances was allowed for wet weather and winter dry weather.

*Requested Action:* Allow a reference system/antidegradation approach in the Staff Report and proposed Basin Plan amendment upon completion of reference system studies in our region, if such studies indicate that significant amounts of metals come from background non-anthropogenic sources.

26. **Peer Review Process:** The Public Notice did not include the legally required Peer Review [CA Health and Safety Code, §57004]. It is critical for the City of Los Angeles and all others who review this TMDL to see what the Peer Review panel has said about this Basin Plan Amendment. The Basin Plan Amendment cannot be completed without a Peer Review. The Regional Board cannot adopt this Basin Plan Amendment without a Peer Review and a public review of the Peer Review Report.

*Requested Action:* Provide access to Peer Review Report for public review and an adequate comment period prior to conducting a hearing for the adoption of this TMDL.

27. **Federal Register Notice.** The front cover and the Introduction of the Staff Report identify the U.S. EPA Region IX and the RWQCB as jointly issuing this document. In a letter to the Los Angeles City Council dated May 6, 2003 (see Enclosure 2), U.S. EPA Region IX agreed to publish draft TMDLs in the Federal Register. It does not appear that the U.S. EPA published notice of this draft TMDL in the Federal Register, as agreed.



*Requested Action:* The TMDL should be renoticed for public comment in the Federal Register.

**28. Improvements to stakeholder process:** Smaller cities were not involved in the development of this TMDL and may disagree with portions of the TMDL.

*Requested Action:* The RWQCB should continue its outreach to interested cities and address their concerns regarding the TMDL (a workshop was scheduled for August 19, 2004, but future outreach efforts may be necessary). The City has a collaborative stakeholder process that can support such outreach in the future.

A table with additional comments is enclosed. Technical comments on cost and interim limits are also enclosed, along with supporting letters.

If there are any questions, please feel free to call Ms. Donna Chen, TMDL Section Manager at (213) 473-8567 or Mr. Clayton Yoshida, Senior Chemist at (213) 473-8569.

Sincerely,

Rita L. Robinson, Director  
Bureau of Sanitation

RLR:TJM:DC

Enclosure

cc: Melinda Becker, Regional Water Quality Control Board  
Jenny Newman, Regional Water Quality Control Board  
Terrence Fleming, U.S. EPA Region 9  
Brian Williams, Mayor's Office  
Jeff Catalano, CD 9  
Ana Mae Yutan, City Administrative Office  
Valerie Lynne Shaw, President, Board of Public Works  
Cynthia Ruiz, Commissioner, Board of Public Works  
Christopher Westhoff, City Attorney's Office  
Rafael Prieto, Chief Legislative Analyst Office  
Joseph Mundine, Bureau of Sanitation/EXEC  
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Shahram Kharaghani, Bureau of Sanitation/WPD  
Traci Minamide, Bureau of Sanitation/RAD  
Donna Toy-Chen, Bureau of Sanitation/RAD  
RAD Central File/TMDL Section

Mr. Jonathan Bishop, Interim Executive Officer  
California Regional Water Quality Control Board  
August 25, 2004  
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R:\Main Files\TMDL Issues\LA River Characterization & TMDLs\LA River metal TMDL\comments Metals 2004\Final 8-20-04  
LAR Metals Comment ltr.doc

Attachment 1, Additional Comments  
LA River Metals TMDL

Comment #	Document Reference (Doc. #, Section #, Page #, Paragraph #)	Issue	Comments	Commenter
1	Page 57	Table 31	This table identifies the dry-weather loading capacities for all the Los Angeles River reaches and tributaries, even though not all the reaches and tributaries are listed on the 303 (d) list as impaired waterbodies. <b>Recommendation: Please revise this table to identify those reaches and tributaries that are listed versus non-listed since the waste load allocations should only apply to listed portions of the Los Angeles river.</b>	City of Los Angeles
2	Page 66, Para 2	A known source of copper is from brake pads. The permittees could sponsor legislative actions with state and federal agencies to pursue the development of alternative materials for brake pads.	The RWQCB should lead this charge. <b>Recommendation: add this sentence to the first full paragraph on page 66: “The RWQCB will take the lead in this effort by working with the permittees and federal legislative offices and seeking funding.”</b>	City of Los Angeles
3	Page 67, Para 4	The permits should also provide a mechanism to make adjustments to the required BMPs as necessary to ensure their adequate performance.	This should read “selected BMPs” not “required BMPs” <b>Recommendation: change the text.</b>	City of Los Angeles

Comment #	Document Reference (Doc. #, Section #, Page #, Paragraph #)	Issue	Comments	Commenter
4	Page 69, Table 35	Responsible jurisdictions and agencies shall provide to the Regional Board results of the special studies conducted as part of the ambient monitoring program.	The re-evaluation of the TMDL waste load allocations does not occur until 6 years after the TMDLs effective date. <b>Recommendation: please adjust the special studies due date to 5 years after the TMDL effective date to allow more time for the studies to be conducted, thus allowing for a more thorough evaluation.</b>	City of Los Angeles
5	Page 69, Table 35	22 year Implementation plan vs. scheduled 15 yrs IP.	Fifteen years is not enough time to comply with the wet-weather portion of this TMDL. This TMDL requires extensive coordination effort among over than 30 agencies. Such effort would require: identifying and complying with the regulatory requirements by local, state, and federal agencies. Planning of sites, designing of facilities, siting of facilities, analysis of implementation alternatives, obtaining needed funds to construct such facilities, initiating selected capital improvement projects by developing a memorandum of Agreement (MOA) for cost sharing among many entities. This is reasonable in comparison with the Santa Monica Beaches Bacterial TMDL implementation schedule, which allows up to 18 years. More time is needed to identify properly the pollutant sources and appropriate control strategies among all stakeholders and then implementing what would work to meet the numeric target for receiving water. Determine whether the impairment even exists, and to conduct further water quality studies to augment the existing water quality objectives as listed in the TMDL document. In consideration of the above arguments, the City <b>requests 22 years</b> to comply with the wet-weather waste load allocations.	City of Los Angeles
6	Page 73, Para 3	Appendix III	As of Monday, August 2nd, Appendix III which provides an analysis of costs is not available on the RWQCB website.	City of Los Angeles

Comment #	Document Reference (Doc. #, Section #, Page #, Paragraph #)	Issue	Comments	Commenter
7	Page 75	Table 40	<b>Recommendation. Please provide a breakdown of the Total Construction and Maintenance Costs in this table based on BMP.</b> Also, is the 30% reduction from the IRP included?	City of Los Angeles
8	Page 77, Para 1	The City plans to extend their program to include metals sampling of the tributaries in the future.	Please modify this sentence to read: “The City plans to extend and modify their program...”	City of Los Angeles
9	CEQA Checklist		This CEQA Checklist does not identify or discuss the environmental impacts of siting and constructing a new stormwater treatment plant with RO, which may be required to comply with these new regulations. <b>Recommendation: address this issue.</b>	City of Los Angeles
10	Pg. 62 Section 7	Implementation	Because the LA River watershed incorporates such a large area and so many municipalities, it would be more advantageous and efficient if the watershed was broken down into two sub areas. Like Santa Monica Bay, creating 2 jurisdictional groups (upper LA River and Lower LA River) would make it easier to meet deadlines requirements and implement improvement projects. We recommend two subwatersheds for ease of coordination and implementation: one for upper LA and the lead would be the jurisdiction with the highest percentage area, one for lower LA and the lead would be the one with highest percentage area. Arroyo Seco Tributary discharging into LA river would be proposed to divide the Lower LA Subwatershed and Upper LA Subwatershed. <b>Recommendation: divide the watershed into 2 jurisdictional groups (upper LA River and Lower LA River), with Arroyo Seco as the dividing line.</b>	City of Los Angeles

Comment #	Document Reference (Doc. #, Section #, Page #, Paragraph #)	Issue	Comments	Commenter
11	Page 68, Section 7.3, 2nd Paragraph	Revision of the waste load allocations	<p>“The Regional Board does not intend to revise the waste load allocations until reductions have been achieved.”</p> <p>What if the results of special studies prove that the waste load allocations were set at an inappropriate level and need to be adjusted prior to the reopener or indication of any reductions. The Regional Board should not be restricted to revise the waste load allocations until some kind of reduction is achieved, but rather on the basis of any new data that is compiled from the special studies. <b>Recommendation: change the wording to include the possibility of revision of waste load allocations if new information from studies is obtained.</b></p>	City of Los Angeles
12	Pg. 70 Footnote 1	Watershed area for the TMDL	<p>In the SMB Bacteria TMDL, the Regional Board has excluded large open space areas like the State owned Santa Monica Mountains on the basis that they did not contribute to the bacteria loading downstream. However, there is a clear correlation that metals are transported through sediment. With these large open spaces contributing to the watershed, they should be included. As stated in the TMDL Document Section 7.2 subtitled “Potential Implementation Strategies” during wet weather , the metal loading are predominately bound to sediment, which are transported with storm runoff.....etc.</p> <p><b>Recommendation: include all state and national park system areas within the watershed as a part of the compliance area due to potential sediment contributions.</b></p> <p>In addition, the approach that the Regional Board has taken to exclude atmospheric deposition in the areas except for what occurs directly over the river does not give a accurate representation of what is really happening. With a watershed this large, a large portion of the entire area needs to be accounted for.</p>	City of Los Angeles

Comment #	Document Reference (Doc. #, Section #, Page #, Paragraph #)	Issue	Comments	Commenter
13	Pg.73 Infiltration trenches	Upper LA River Watershed area	The assumption the TMDL uses, "...20% of the watershed would be treated by infiltration trenches and 20% of the watershed would be treated by sand filters." may not be realistic. The Upper LA River watershed area may not be able to implement such projects throughout a majority of the area because of regulations set by the Watermaster that limit infiltration. <b>Recommendation: insert the last sentence in the paragraph above.</b>	City of Los Angeles
14	Attachment A, Page 9, Footnote 1	Storm Year Definition	The LACDPW water year is: October 1 <sup>st</sup> through September 30 <sup>th</sup> <b>Recommendation: make the correction.</b>	City of Los Angeles
15	Attachment A, Page 10	Special Studies	First bullet should read <ul style="list-style-type: none"> <li>Refined flow estimates for the Los Angeles River mainstem and tributaries where there presently are no flow gages and improved gaging of low-flow conditions <b><u>where needed.</u></b></li> </ul> <p>It is our understanding that the low flow channelized gaging stations (e.g. Tujunga Ave) are accurate</p>	City of Los Angeles
16	TMDL, Page 11	Reach 4 and 5 boundaries	Riverside St. should read Riverside Dr.	City of Los Angeles

Comment #	Document Reference (Doc. #, Section #, Page #, Paragraph #)	Issue	Comments	Commenter
17	Page 77, Para 1	An ambient monitoring program is required to assess water quality throughout the Los Angeles River and its tributaries. The MS4 and Caltrans stormwater NPDES permittees are jointly responsible for implementing the ambient monitoring program.	The ambient monitoring program should be a responsibility shared by <b>all</b> dischargers to the river, which includes not only MS4s and Caltrans but also all POTWs, minor and general NPDES dischargers, industrial permittees, and national forest and state parks. <b>Recommendation: insert the above statement into paragraph 1.</b>	City of Los Angeles
18	TMDL for Metals LA River and Tributaries.  All pages that contain "total metals"	Definition of Total Metals in the entire document	There is a need to unequivocally define the term total metals. The currently used version of EPA Method 200.7 (metals by ICP-AES) contains a sample preparation procedure for "total recoverable metals" but not for total metals. Standard Method for the Examination of Water and Wastes contains sample preparation procedures for both total and total recoverable metals. The California Toxics Rule references total recoverable metals. <b>Recommendation: This document should contain a statement that the terms total metals and total recoverable metals are used interchangeably.</b>	City of Los Angeles



Comment #	Document Reference (Doc. #, Section #, Page #, Paragraph #)	Issue	Comments	Commenter
19	TMDL for Metals LA River and Tributaries.  Page 12, paragraph 4	it receives up to 720 mgd of hydrotest...	There may be a typographical error. <b>Recommendation: verify correctness of the statement.</b> The flow, 720 mgd, seems unreasonably large.	City of Los Angeles
20	TMDL for Metals LA River and Tributaries.  Page 13, paragraph 2	The median flow... over a 12 year period (October 1998 to December 2000)...	There is a typographical error; either the dates of the time period are incorrect. Later in the paragraph the dates are listed as October 1988 to December 2000. There is probably a typographical error in the first listing of the dates. <b>Recommendation: make the correction.</b>	City of Los Angeles
21	TMDL for Metals LA River and Tributaries.  Page 79, paragraph 1	will be analyzed for total metals, dissolved metals...	One assumes that the TMDL refers to the 303(d) listed metals. <b>Recommendation: This should be stated explicitly.</b>	City of Los Angeles
22	Section 2.2, page 21		“The City of Los Angeles measures metals and hardness in receiving waters from several locations upstream and downstream of its treatment plants (Figure 2) on a quarterly basis.” This statement appears to refer to monitoring stations associated with the treatment plants, not the City’s Watershed Monitoring Program (WMP). Because Figure 1 shows treatment plant locations and Figure 2 shows WMP stations, it would be more appropriate to reference Figure 1 rather than Figure 2 here. <b>Recommendation: reference figure 2.</b>	City of Los Angeles

Comment #	Document Reference (Doc. #, Section #, Page #, Paragraph #)	Issue	Comments	Commenter
23	Section 3, Numeric Targets, pp 26-27		This section discusses the merits of coordinating TMDL efforts to manage metals loadings from 3 watersheds and some harbor areas. This is desirable, but it requires the TMDLs for all of these areas to be developed. Some of these TMDLs are not scheduled in the Consent Decree for specific completion dates, but all must occur within the next few years. The implementation schedule for this TMDL extends over 10 (dry weather) to 15 (wet weather) years. Some efforts (e.g., non-structural BMPs) should be implemented regardless of the status of additional TMDL development, but it probably would be better if other efforts (e.g., major structural BMPs) were implemented after all relevant TMDLs are developed. Because of this, <b>we recommend the implementation schedule for this TMDL be reviewed when these other TMDLs are developed.</b>	City of Los Angeles
24	Section 4, Source Assessment, pg. 40		The following statement needs clarification: “Not all the metals deposited on the land from the atmosphere are loaded to the river. The mass loading in stormwater is typically 10 to 20% of the mass loading from atmospheric deposition (compare Table 16 and Table 17).” The percentages seem closer to one-third or more based on the “Typical year” values (SCCWRP) or the average of LACDPW data (Table 16). The LACDPW values are greatly increased by the high values from 97/98, but no evidence suggests this is true for the SCCWRP data. It appears indirect aerial deposition makes a larger contribution than suggested on page 40. At any rate, <b>the 10 to 20% estimate should be justified or changed.</b>	City of Los Angeles

Comment #	Document Reference (Doc. #, Section #, Page #, Paragraph #)	Issue	Comments	Commenter
25	Section 7. Implementation, page 62; Third paragraph		The reference to Table 33 in the sentence “Likewise, the concentration-based waste load allocations that apply to the Tillman, LA-Glendale and Burbank POTWs when flow exceeds their design capacities (Table 33) will also be implemented through their respective NPDES permits” appears to be wrong. On page 60, first full paragraph, it states “During wet weather, the POTWs will retain the waste load allocations assigned for dry weather.” This suggests <b>the appropriate table to reference for the POTWs on page 62 is Table 30, not Table 33.</b>	City of Los Angeles
26	Section 7.2.1. Cost estimate ..., page 70.		The first paragraph assumes compliance could be achieved in an urbanized portion of the watershed using an integrated resources approach (30%), non-structural BMPs (30%), and structural BMPs (40%). How were these percentages determined? <b>Recommendation: discuss how there percentages were determined.</b>	City of Los Angeles
27	Section 10. References, pp. 82-85	Incomplete	Not many of these references were found in the text. A brief scan of one of the appendices revealed that it contained its own reference section. The appendices of this and previous TMDLs contain mostly stand-alone documents, so one would not expect the staff report to contain their references. The staff report also contains a number of references (e.g., McPherson et al., 2004 on page 33) that are not included in the reference section. <b>The entire reference section should be reviewed and corrected for the final report.</b>	City of Los Angeles